

FIG. 1

Companies Subject Area (ERD)

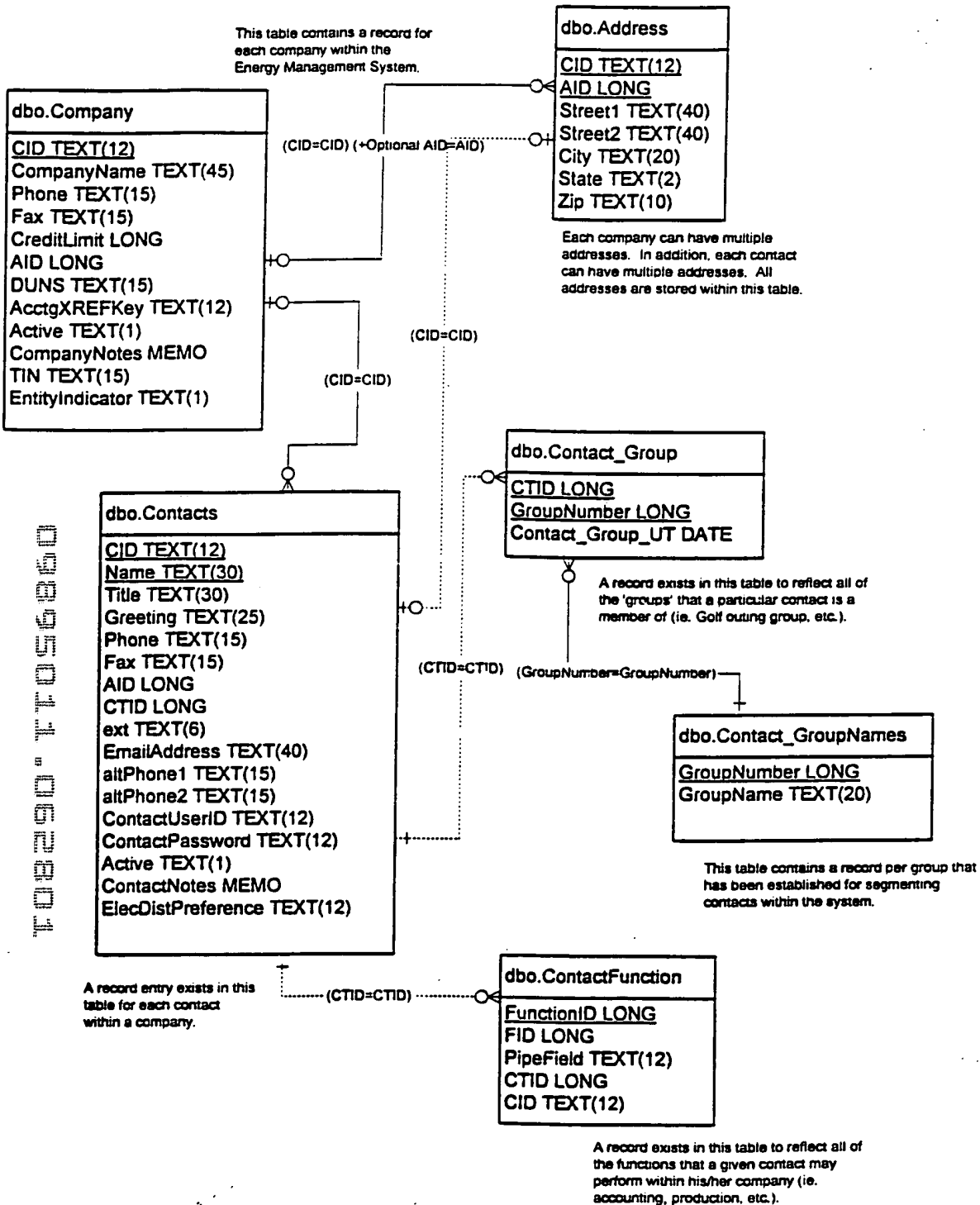


FIG. 3A

Contracts Subject Area (ERD)

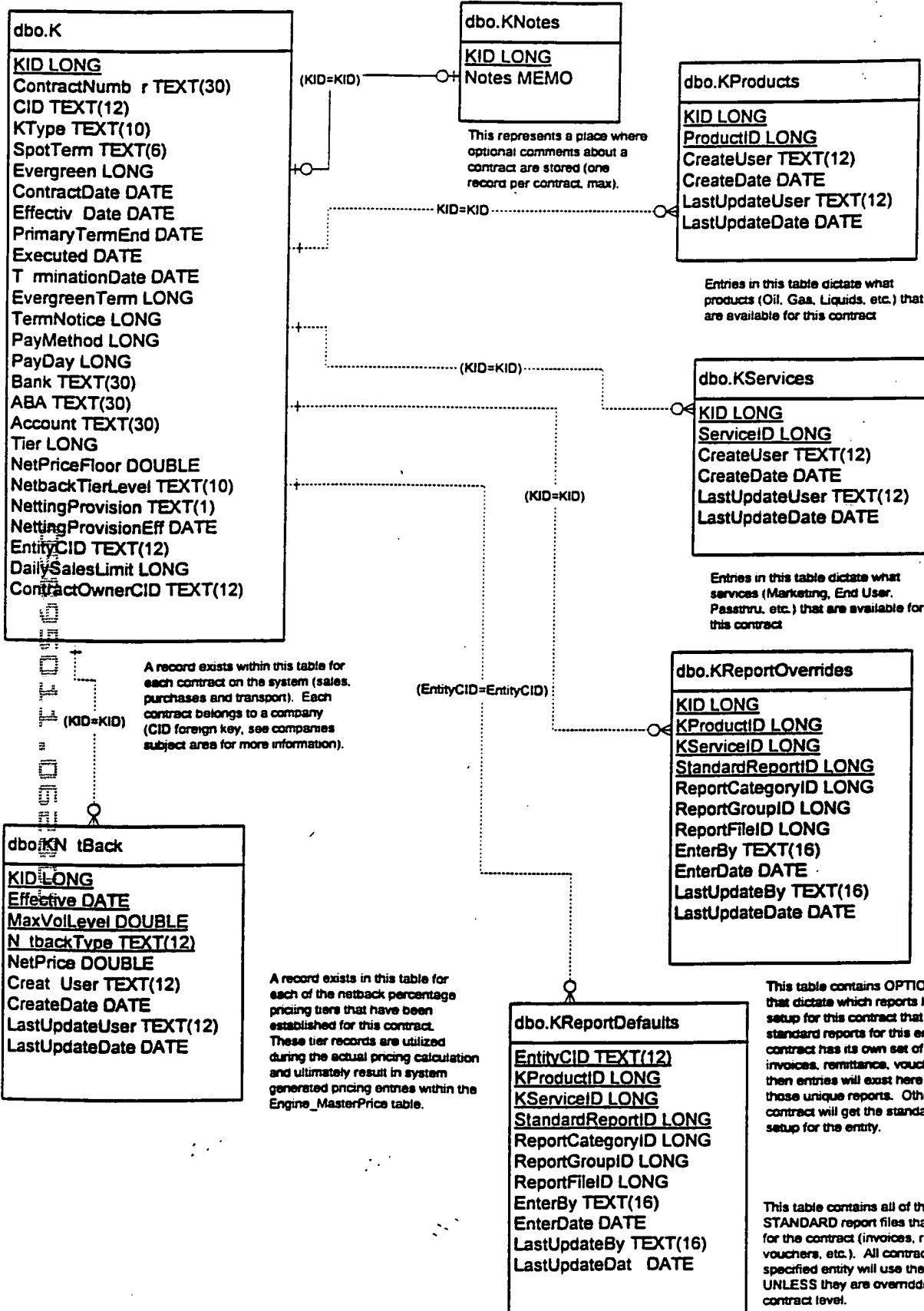


FIG. 30

Deals Subject Ar a (ERD) (1 of 2)

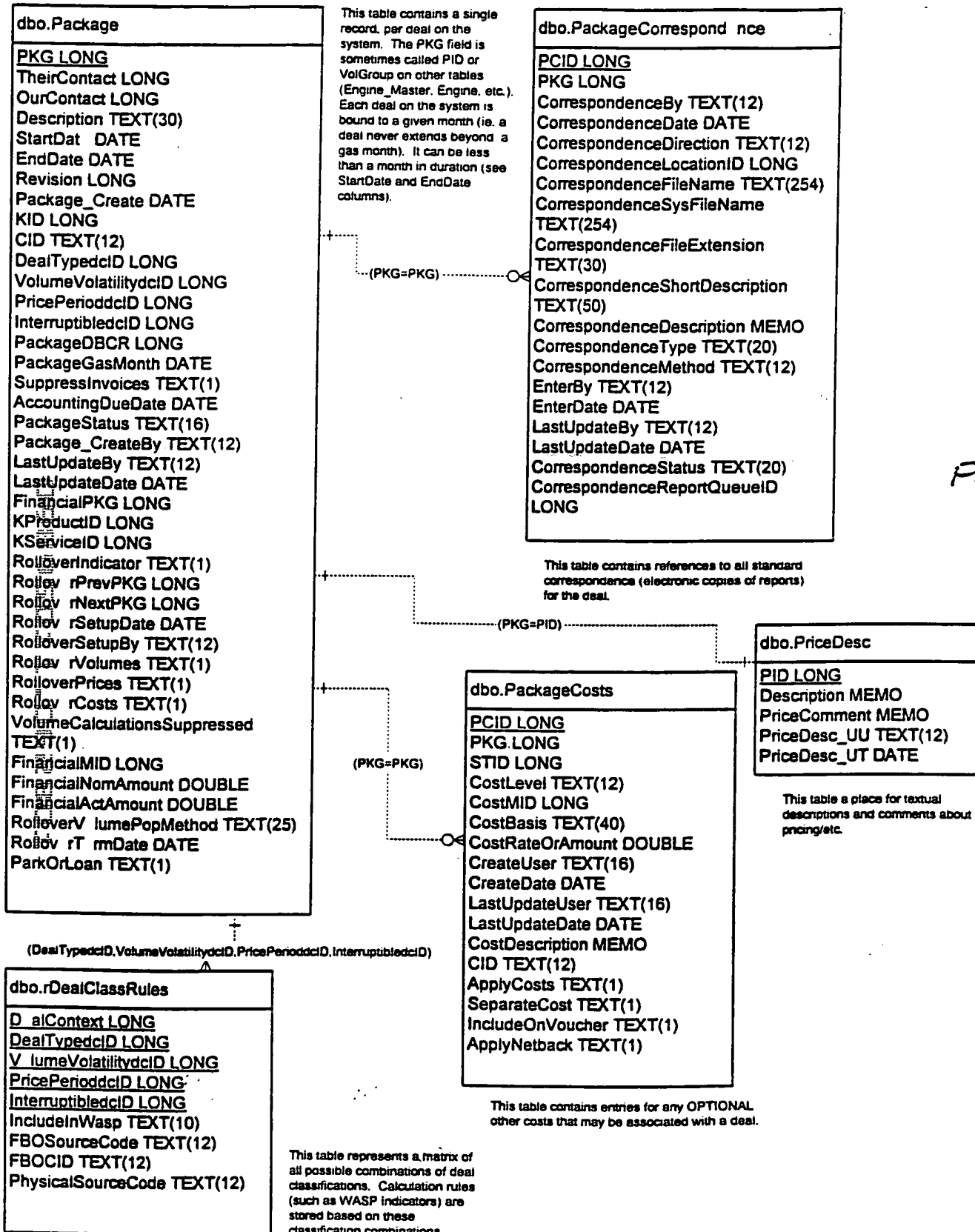
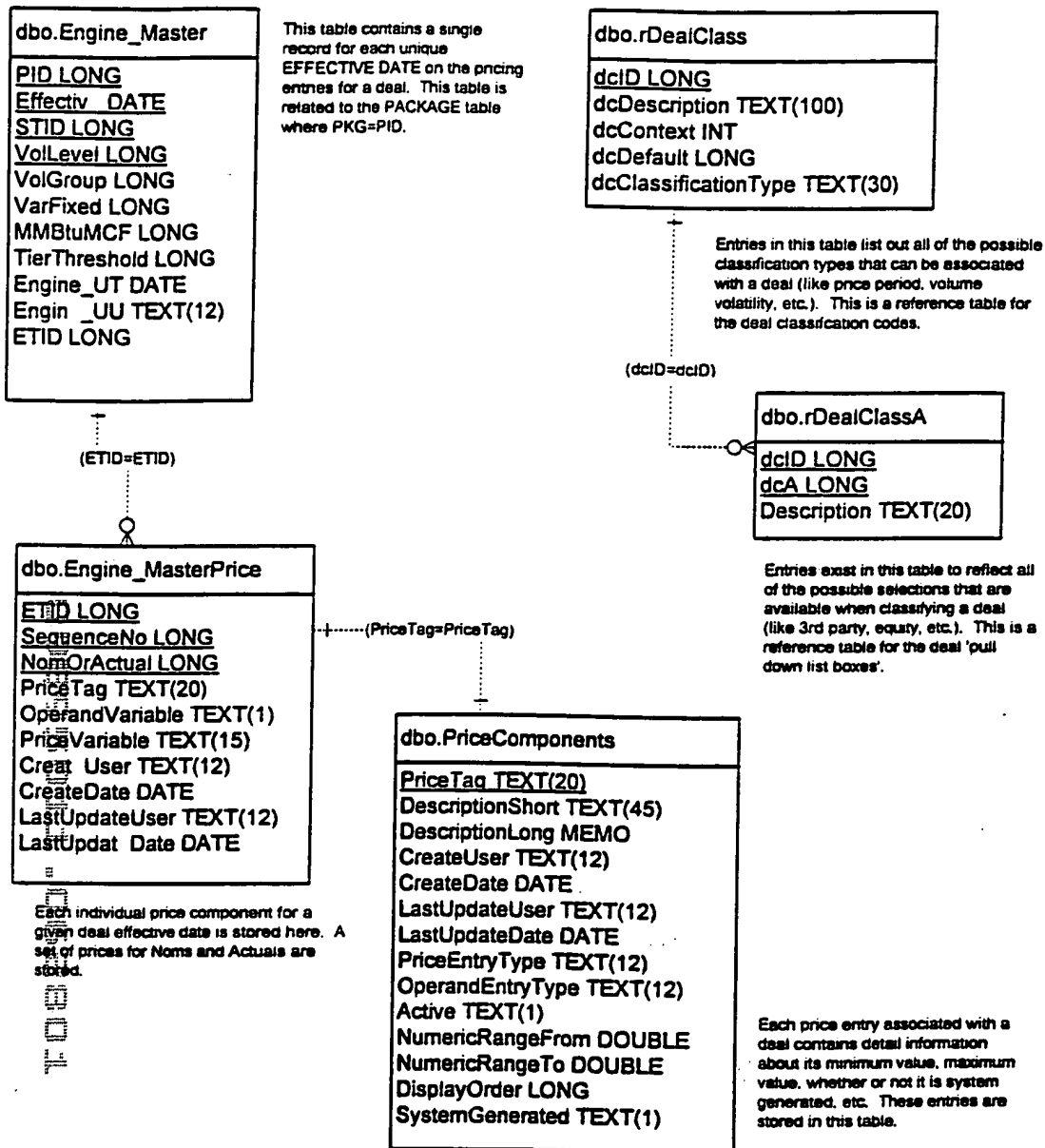


FIG. 36

Deals Subject Ar a (ERD) (2 of 2)



Gas Inventory Subject Area (ERD) (1 of 2)

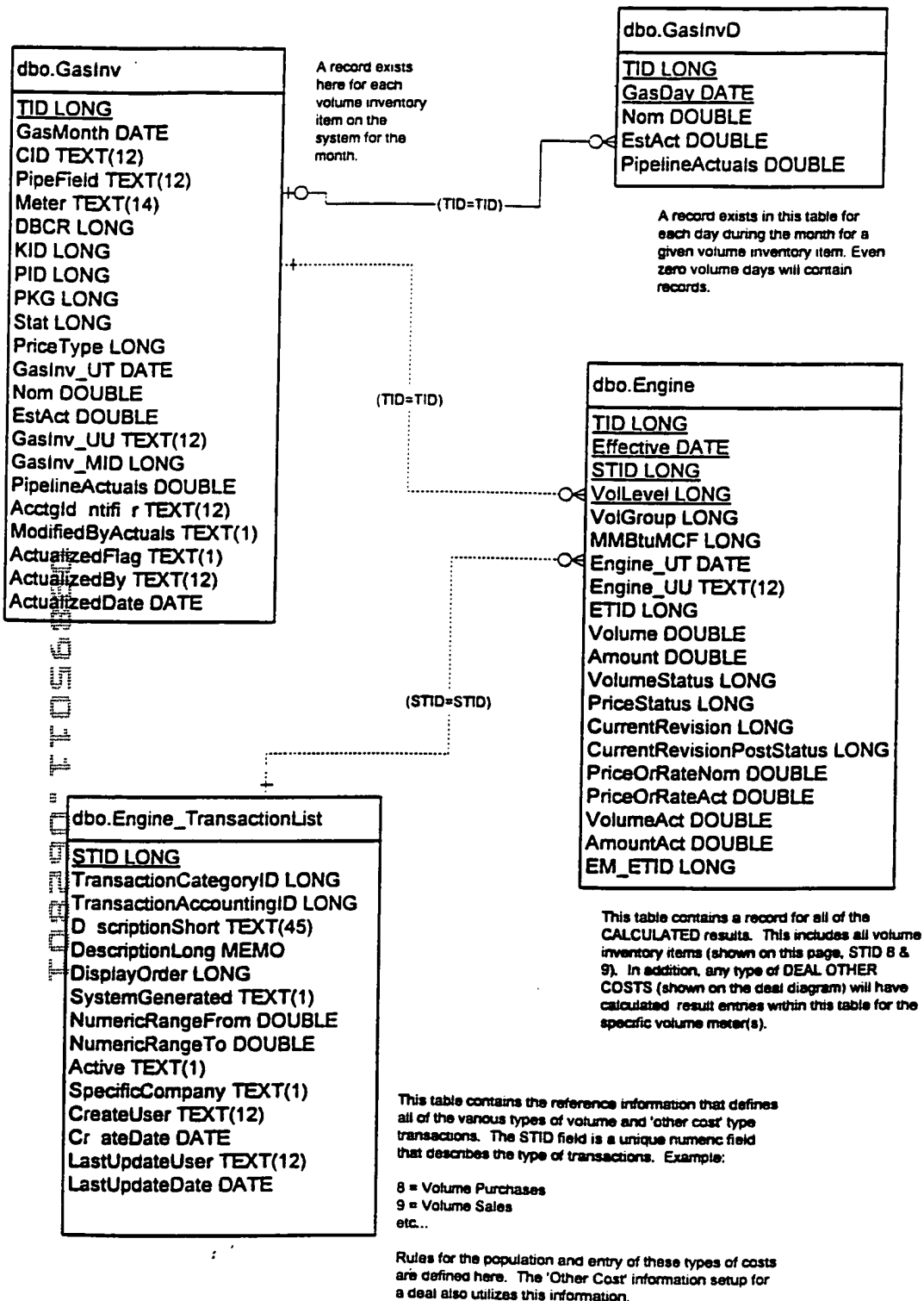


FIG. 3E

Gas Inventory Subj ct Ar a (ERD) (2 f 2)

dbo.ProdVol	
<u>GasMonth</u>	DATE
<u>MID</u>	LONG
<u>KID</u>	LONG
RI	SINGLE
MI	SINGLE
RMMBtuDay	LONG
MMMBtuDay	LONG
TID	LONG
ProdVol_ut	DATE
ProdVol_uu	TEXT(12)
RID	LONG
Contracts	TEXT(100)
FirstPurch	TEXT(12)
Confirms	INT
ConfirmVol	LONG
Confirmed	DATE
ConfirmOK	INT
PVID	LONG
ConfirmMID	LONG
ProdVol_ID	LONG
confirmBatch	LONG
ConfirmDistributionID	LONG
ConfirmQueueID	LONG
ConfirmRequest	TEXT(20)
ConfirmStatus	TEXT(12)
ConfirmStatusInfo	TEXT(80)
EstimateQueueID	LONG
EstimateDistributionID	LONG
EstimateStatus	TEXT(12)
EstimateStatusInfo	TEXT(80)
VolumeDealtWith	TEXT(1)

dbo.ProdSum	
<u>GasMonth</u>	DATE
<u>MID</u>	LONG
BTUContent	DOUBLE
GrossMMBtuMo	LONG
RID	LONG
ProdSum_ut	DATE
ProdSum_uu	TEXT(12)

This represents a 'summary' record that shows the total volume (expressed in MMBTU's) that is being allocated amongst all owners within a meter. The total volume here is what is expected to be produced at a meter/well. The individual interests of this amount are stored on the ProdVol table (accompanying).

dbo.ProdPkg	
<u>GasMonth</u>	DATE
<u>KID</u>	LONG
PKG	LONG

A record exists here for each deal that was generated automatically out of the 'Availability' process. This shows what deal was created for a specific ownership interest in a meter.

dbo.ProdInterest	
<u>ProdInterest_ID</u>	LONG
<u>KID</u>	LONG
<u>MID</u>	LONG
Effective	DATE
RI	DOUBLE
Inactive	DATE
ProdInterest_UU	TEXT(12)
ProdInterest_UT	DATE
Contracts	TEXT(100)
FirstPurch	TEXT(12)
Confirms	LONG
ConfirmMID	LONG

A record exists here that defines what owners exist on a particular meter/well and their respective royalty interests

(GasMonth=GasMonth.MID=MID)

(KID=KID.GasMonth=GasMonth)

KID,MID=MID)

A record exists in this table for each ownership volume interest, on a specific meter within a particular production month.

This table is used when populating the 'Availability' volumes and the information stored here gets posted to actuals deals and GasInv items.

FIG. 3F

Operational Subject Area – 1 of 4 (ERD)

dbo.PrinterDef

PrinterNumber LONG
 DisplayName TEXT(80)
 ServerPrinterName TEXT(80)
 InternalPrinter TEXT(1)

All printers defined in the system are stored in this table.

dbo.ApplicationMessages

ApplicationMessageID LONG
 ApplicationMessageDate DATE
 ApplicationMessageText TEXT(255)

This table contains application messages that normally only print to the server console (for example when a calculation is running the messages are written here).

dbo.ExceptionCategories

ExceptionType TEXT(12)
ExceptionNo LONG
 ExceptionShort TEXT(45)
 ExceptionLong MEMO
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE
 ExceptionOrder LONG

This table contains record entries for all of the possible exception reason categories defined within the system. These reasons are based on the type of exception that occurs ('Deal', 'Pricing', etc.).

dbo.LogTable

LogEntry LONG
 LogDateTime DATE
 LogInfo TEXT(254)

This table is used primarily for debugging purposes and is not utilized by any screen or reporting process.

dbo.ExceptionList

ExceptionListID LONG
ExceptionType TEXT(12)
ExceptionKey LONG
 ExceptionDate DATE
 ExceptionSequence LONG
 ExceptionEvent TEXT(45)
 ExceptionNo LONG
 ExceptionBy TEXT(12)
 ExceptionComments MEMO
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE

This table contains the actual exception event entries. The ExceptionKey and sequence columns associate the exception to the entity based on type (i.e. PKGID would be the key for ExceptionType = 'DEAL').

Fig. 36

dbo.rGasMonth

GasMonth DATE
 CurrentStatus TEXT(20)
 CurrentSequence LONG
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE
 LockedUser TEXT(12)
 LockedDate DATE

One record exists in this table for every production month in the system. In addition, this table contains the CURRENT status field ('Availability', 'Sales', etc.).

dbo.rGasMonthStatus

GasMonth DATE
CurrentSequence LONG
 Status TEXT(20)
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE

This table represents an 'audit' table that captures the production month information EVERYTIME the status is changed. This provides for detail analysis on how long production months are left in a particular status.

(GasMonth=GasMonth)

Operational Subject Area - 2 f4 (ERD)

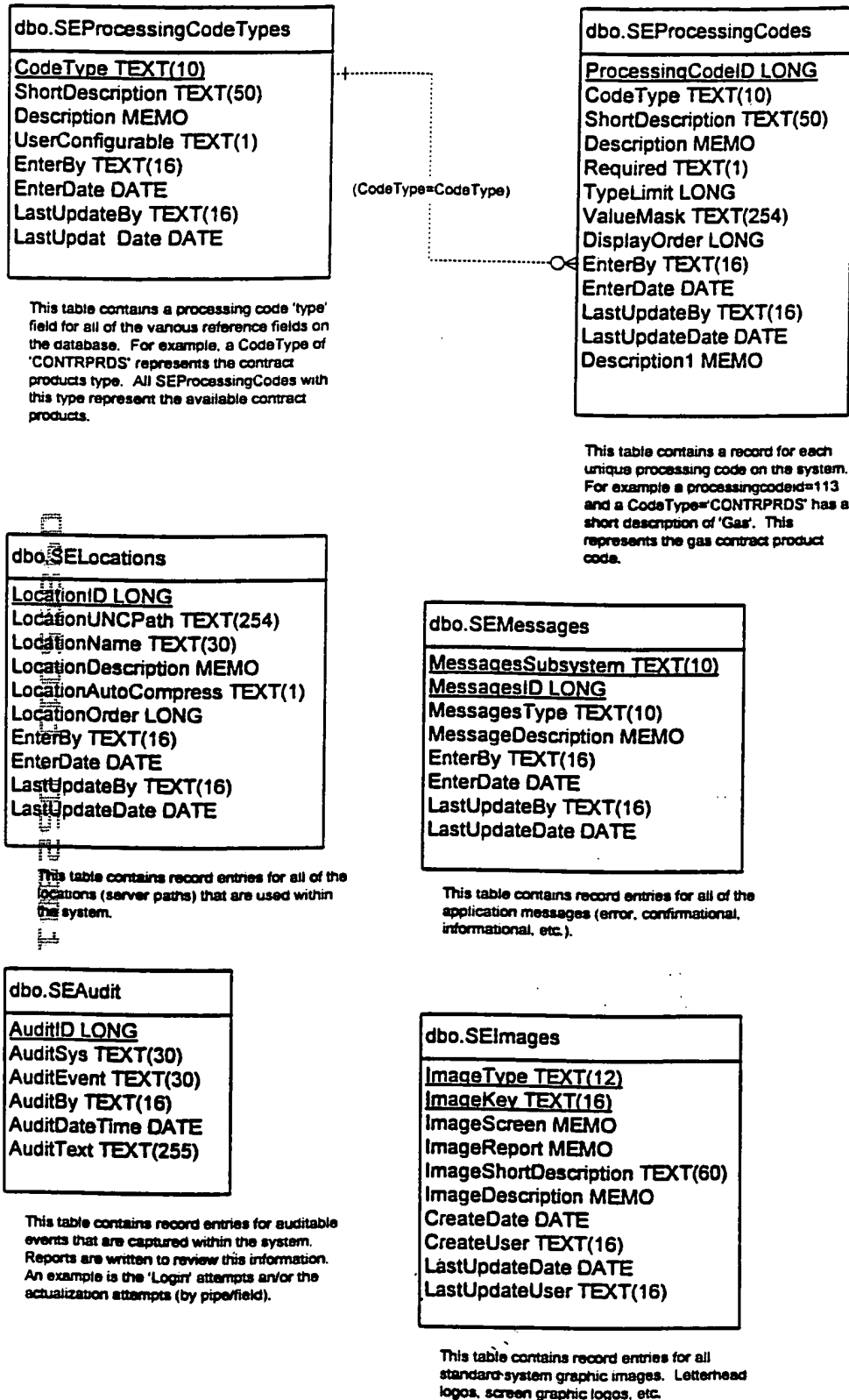


FIG. 314

Operational Subject Area – 3 of 4 (ERD)

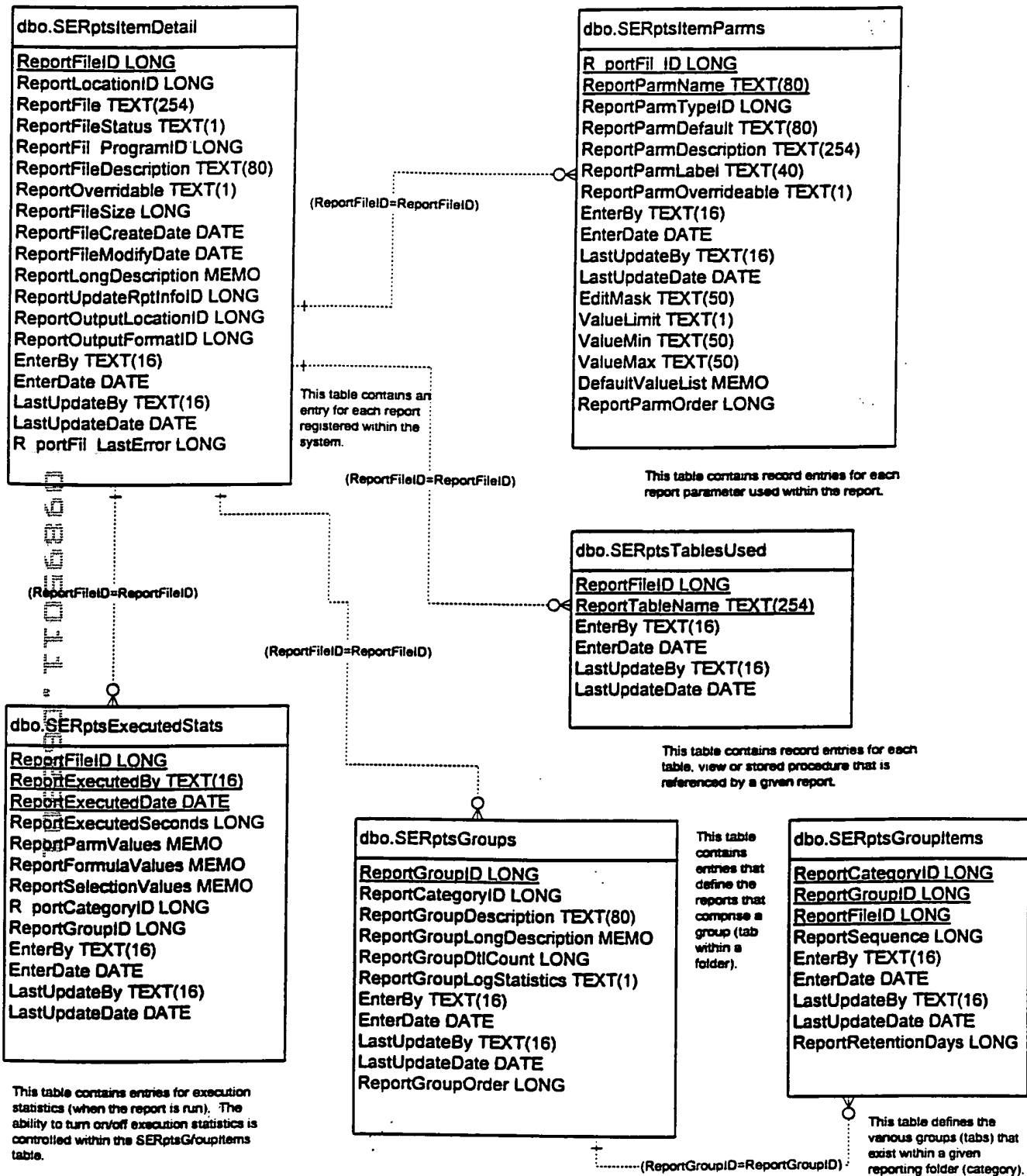


FIG. 32

Operational Subject Area – 4 of 4 (ERD)

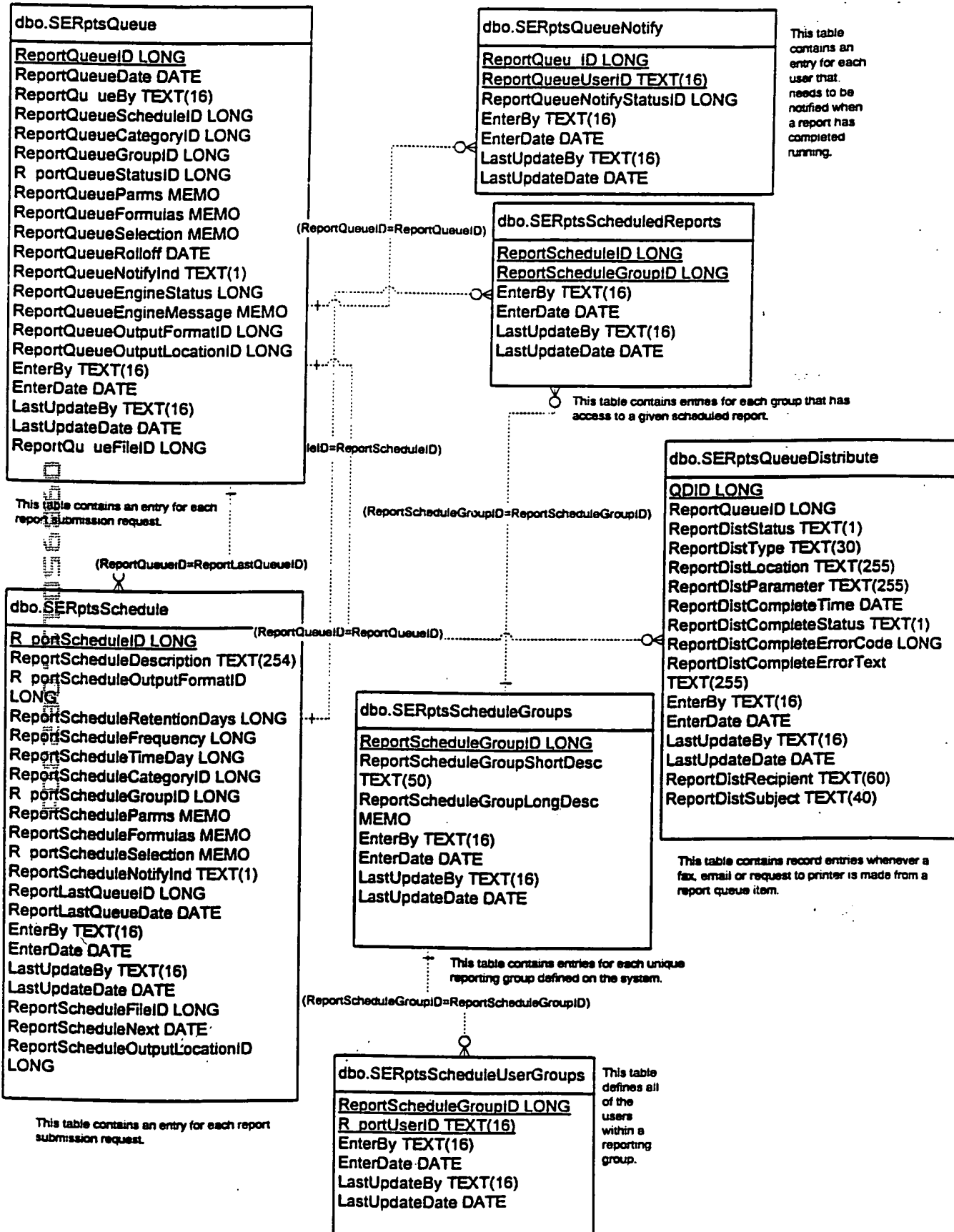


FIG. 35

Pipes & Meters Subject Area (ERD)

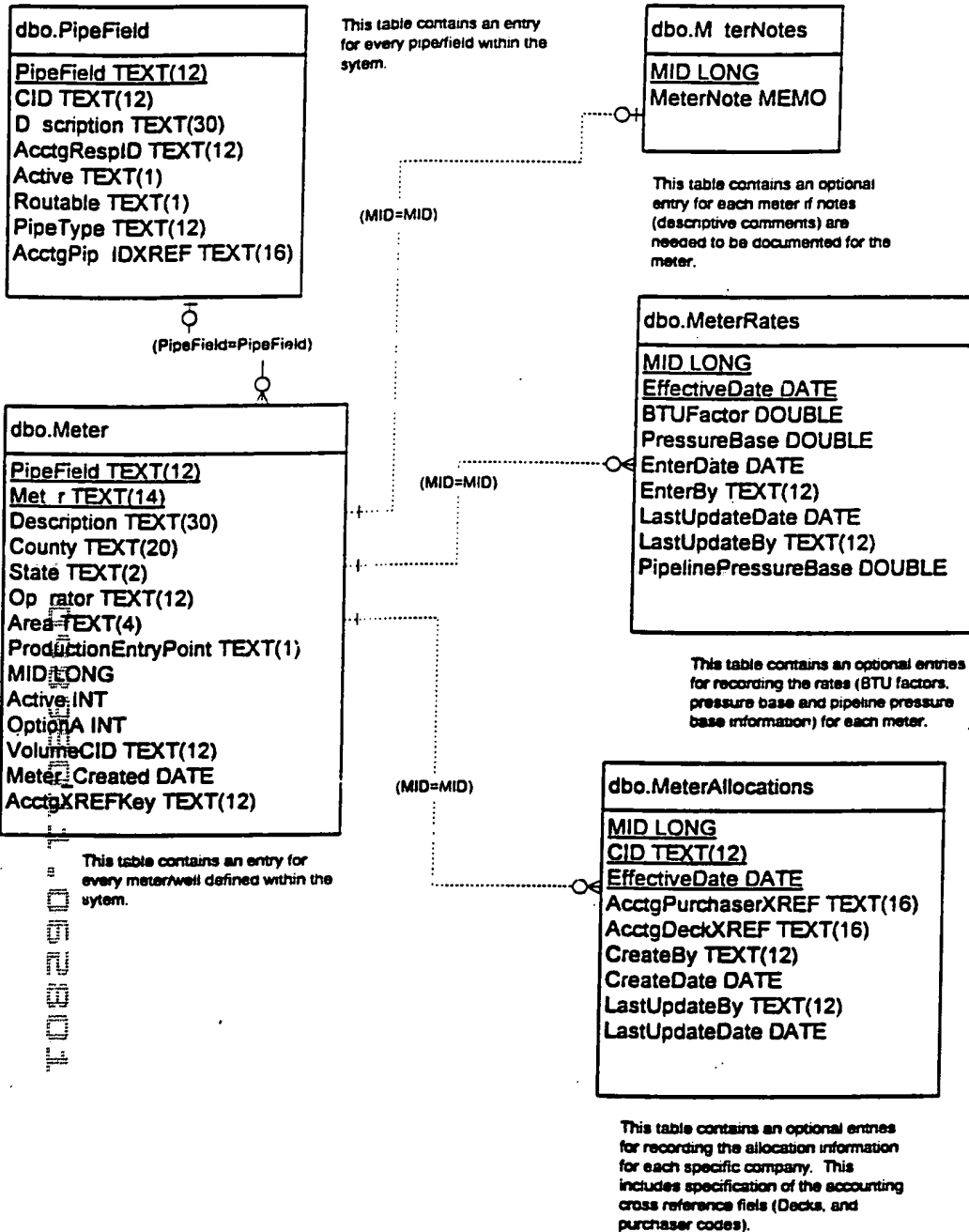


FIG. 3K

Pricing Subject Area (ERD)

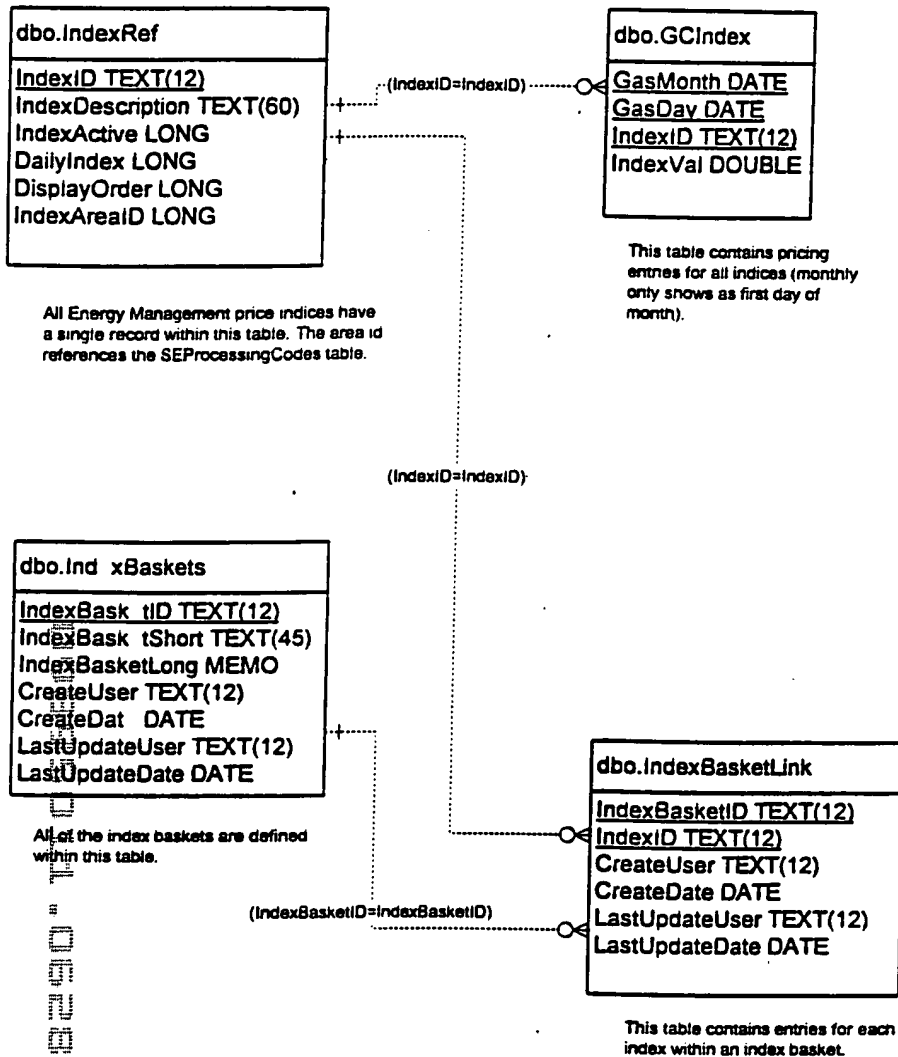


FIG. 36

Routing Subject Area (ERD)

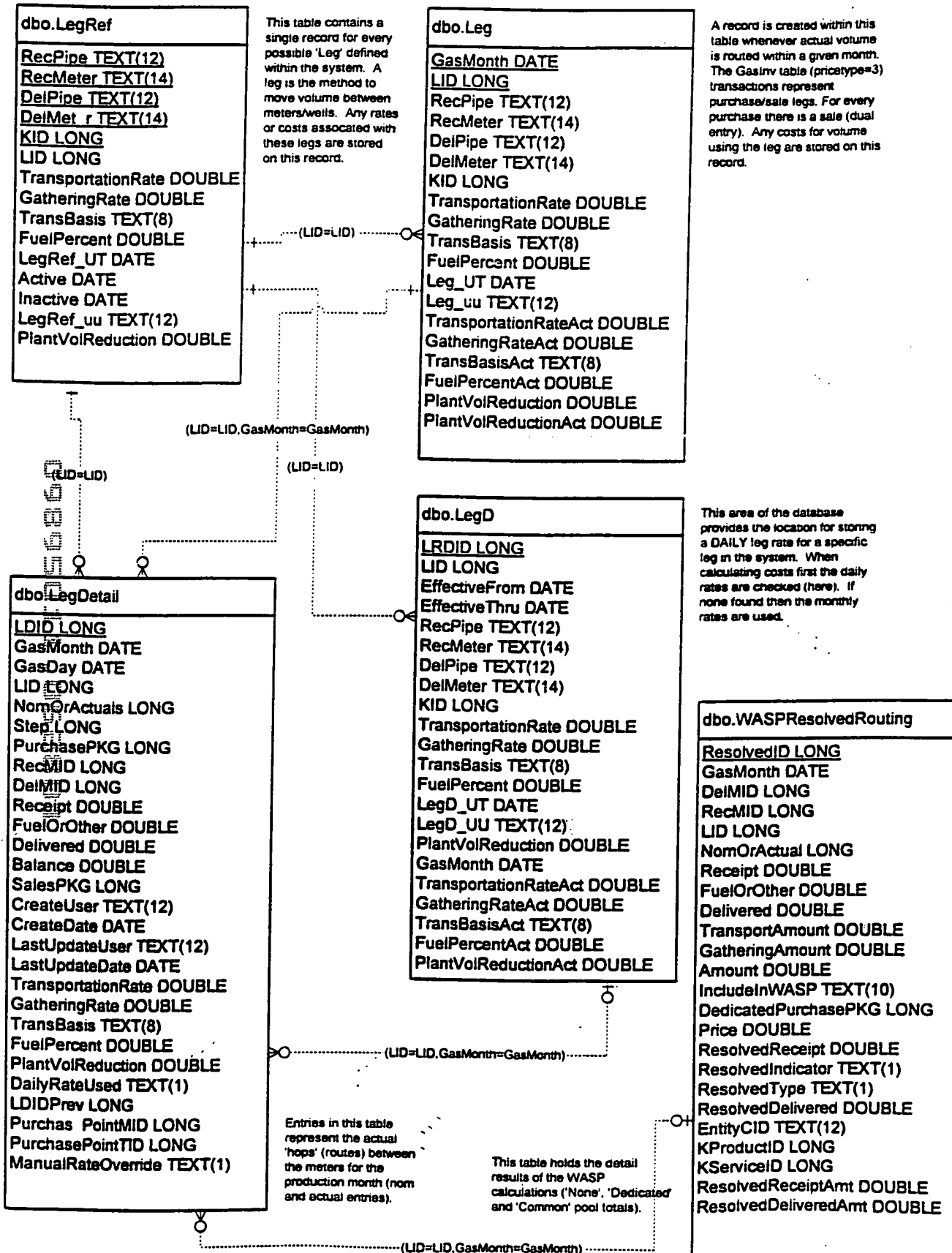


FIG. 3M

Security Subject Area (ERD)

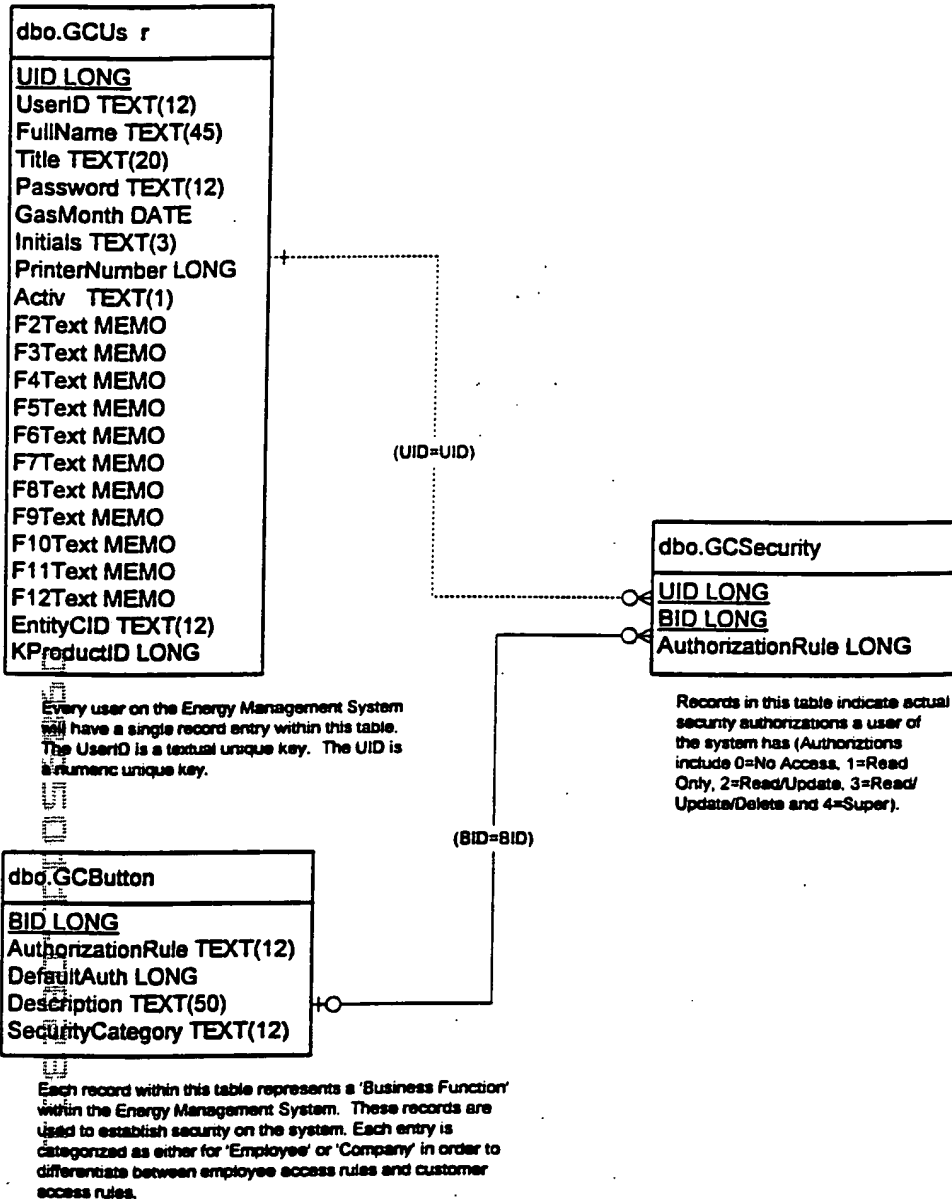



FIG. 3 N

TOB290" TOS680

**Energy Management System**


Version
(5.06)


02/23/2001 12:53:49 pm | SUSAN


HEC | Gas


December, 2000 | Accounting


Printer: Accounting Printer


Personal


Price Index


Company


Availability


Deals


Routing

Accounting

System

Start

Energy Management System



12:53 PM

ETG CIA

Version
(5.06)

02/23/2001 12:54:37 pm | SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer



Personal



Price Index



Company



Availability



Deals



Routing



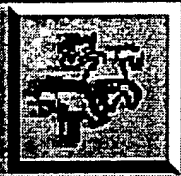
Accounting



System

User Profile Detail - [Change]

General	F2 KEY	F3 KEY	F4 KEY	F5 KEY	F6 KEY	F7 KEY	F8 KEY	F9 KEY	F10 KEY
ID	SUSAN								
Full Name	Susan Sims								
Title	Dir. of Client Svcs								
Password	*****								
Month	December / 2000								
Entity	HEC								
Product	Gas								
Active?	<input checked="" type="checkbox"/> Active?								
Initials	SS								
Printer Number	Accounting Printer								
Internal User ID	2448								



T08290"TT056860

Energy Management System

02/23/2001 12:55:01 pm SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

Version: (5.06)

Personal

Price Index

Company

Availability

Deals

Routing

Accounting

System

View Your Reports...

Change Your Password...

Customize Your System Properties...

Exit

Start

Energy Management...

12:55 PM

[illegible]

Energy Management System

Version: 02/23/2001 12:56:26 pm | SUSAN

(5.05) HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

Personal

Price Index

Company

Availability

Deals

Routing

Accounting

System

System Properties

Database Connection Properties

Default Window Properties

General

Application Image:

☒ Stretch?

☒ Transparent?

Updateable Non-Grid Fields

Protected Non-Grid Fields

Grid Title:

Updateable Grid Fields:

Protected Grid Fields:

SELECTED Grid Fields:

Background Color:

Updateable Fields

Protected Fields

Grid Title Bar

Grid Updateable Fields

Grid Protected Fields

Grid Selected Fields

When you select OK all of your preferences will be automatically saved for you and used. These preferences will never be used if the application is exited and you return later.

OK

Cancel

Energy Management System

Version 02/23/2001 12:56:42 pm SUSAN
HEC | Gas
December, 2000 | Accounting
Printer: Accounting Printer



Price Index
Personal

Company
Availability
Deals
Routing
Accounting
System

- \$ Enter or Update Daily/Monthly Prices
- View (Graph) Price Index Information
- Add or Update Index Areas
- Add or Update an Index
- Add or Update an Index Basket
- Add or Update Price Index Exceptions
- Price Index Reports

108290" T1056860

Version
(5.06)

02/23/2001 12:57:28 pm | SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer



Personal



Price Index



Company



Availability



Deals



Rolling



Accounting



System

Daily Index Price Updates

Index	Name	Price
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.2100
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.1550
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.2100
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.1750
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.0000
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.0300
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.3150
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.2700
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.2100
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.2050
DCDEP(PB)I	Daily Gas Daily Midcontinent Energy Partners (Midcontinent)	\$6.1900

You may change the price (if you have security privileges)

Display Order

Records: 211

< LOOKUP >

Friday - 12/01/2000

Navigation buttons: First, Previous, Next, Last, Find, Print, etc.

Buttons: WebEdit Copy, Help, Exit

Prices By Month

Index Prices By Month

Sources: Inside F.E.R.C.'s 'Gas Market Report' and Financial Times Energy 'Gas Daily Report'.

Monthly index prices only contain price entries on the 1st day of the month and these prices are used throughout the month.

Month:

Area or Pipe/Field:

Index:

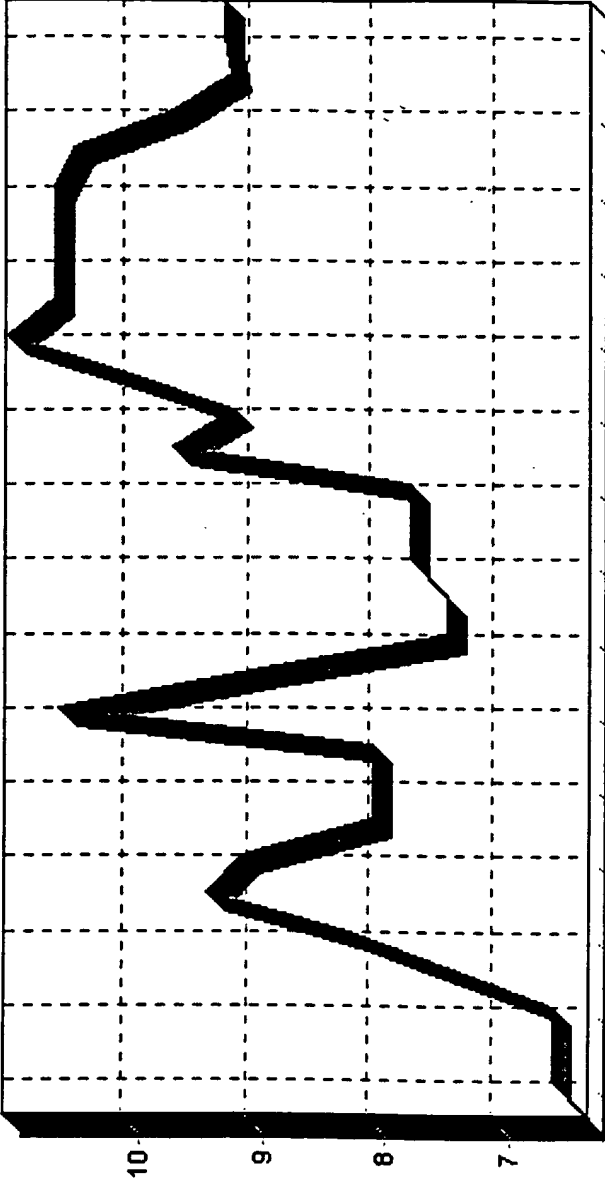
Day	Price
12/01/2000	16.2100
12/02/2000	16.4300
12/03/2000	16.4800
12/04/2000	16.4800
12/05/2000	16.4800
12/06/2000	16.4800
12/07/2000	16.4800
12/08/2000	16.4800
12/09/2000	16.4800
12/10/2000	16.4800
12/11/2000	16.4800
12/12/2000	16.4800
12/13/2000	16.4800
12/14/2000	16.4800
12/15/2000	16.4800
12/16/2000	16.4800
12/17/2000	16.4800
12/18/2000	16.4800
12/19/2000	16.4800
12/20/2000	16.4800
12/21/2000	16.4800
12/22/2000	16.4800
12/23/2000	16.4800
12/24/2000	16.4800
12/25/2000	16.4800
12/26/2000	16.4800
12/27/2000	16.4800
12/28/2000	16.4800
12/29/2000	16.4800
12/30/2000	16.4800

Average: 16.4800

14 44 4 44 44 44

Refresh More










Graphical View











12/02 12/04 12/06 12/08 12/10 12/12 12/14 12/16 12/18 12/20 12/22 12/24 12/26 12/28 12/30

OK Cancel

00000000000000000000000000000000

 Energy Management System		Version: 5.06		02/23/2001 12:58:30 pm SUSAN	
 Personal		 Price Index		 Company	
 Availability		 Deals		 Rolling	
 Accounting		 System			

December, 2000 Accounting	
Printer: Accounting Printer	

 Add or Update a Company...	 Add or Update a Contract...
 Add or Update a Contact Person...	 Add or Update Contract Products...
 Add or Update Contract Services...	 Setup Default Standard Reports...
 Add or Update a Contact Group...	 Company Reports...

FOR290" T056860

Energy Management System

02/23/2001 12:58:58 pm

SUSAN

Version (5.06)

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

Personal

Price Index

Company

Availability

Deals

Routing

Accounting

System

Enter Production Volumes

Produce Production Continues

Availability Reports

Start

Energy Management

12:58 PM

CTY 44

Energy Management System

Version: 02/23/2001 01:01:10 pm | SUSAN
 HEC | Gas
 December, 2000 | Accounting

Deal Details - [Change]

Deal ID	66028	Classification	12/23-31 3TEC
Product	Gas	Service	Marketing
Month	December / 2000	Status	Accounting Phase
Contract	3TEC Energy Corporation	Start Date	12/23/2000
	3TEC OIL & GAS PURCHASE	End Date	12/31/2000
		Created	CONFIRM REPRICED

Rollover Rules | Correspondence | [View Financials](#) | Financial Overview
 General | Volumes | Prices | Calculation Results | Audit Information

Our Contact: Janna Calhoun, 713-821-7107

Our Contact: Leslie Vandagriff, 214-954-1430
lvandagriff@highlandenergy.com

Description: \$5.89* MANUAL NB .99

Comments: Due

All information relevant to this particular deal is shown on this screen. You have the option of directly changing this information (dependent on status of the month).

OK Help Cancel

1002290" TT056860

Energy Management System

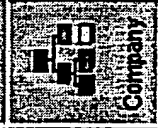
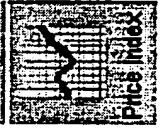
Version
(5.06)

02/23/2001 01:00:04 pm. SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer



- [1] (Step 1 of 4) - Enter Pipe/Fed Actuals
- [2] (Step 2 of 4) - Balance Purchase Meters/Wells
- [3] (Step 3 of 4) - Balance Sales Meters/Wells
- [4] (Step 4 of 4) - Adjust Imbalances/Cashouts

- Actualization Steps
- Export OFSY's Files
- Transaction Accounts
- Transaction Categories
- Transaction List
- Accounting Reports



Energy Management



1:00 PM

Month	December 1 2000	Type	Purchases	Volume Allocation	0	1	1.000000	31
Columbia Gulf Transmission				Columbia Gulf Transmission				

You have the option of either entering the daily actual volumes directly next to their respective day (right side list) OR to use the volume allocation panel (right center of the window). (Figure 1 and meter/tall actual labels at bottom should match your

Right click the meter/wall and go to Settings

[illegible][illegible]

T08290" T056860

Energy Management System

02/23/2001 01:00:21 pm | SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

Version (5.08)

Availability

Monthly Status

Monthly Status Exception Reason Codes

Production Control Center Messages

Locations

Processing Code Lines

Printers

Application Images

Security

Management Reports

System Reports

Standard Report Types

Help

About the Energy Management System

Company

Pics Index

Personal

Setup Users

Setup System Functions

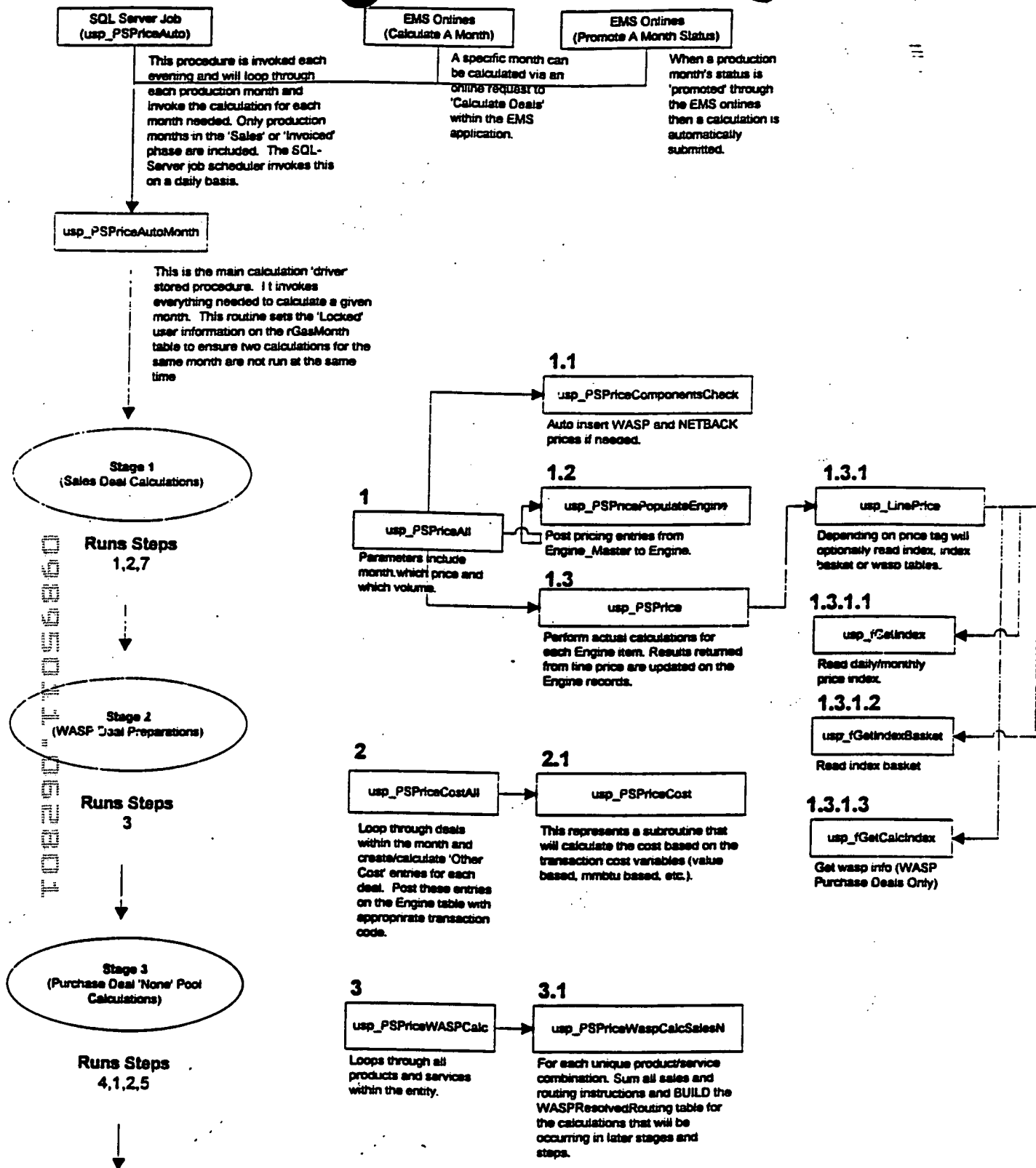
Update User Security Files

Rolling

Accounting

6/5/01

WASP Calculation Diagram (1)



continued on next page.

FIG. 5A